

REMARKS/ARGUMENTS

In paragraph 2 of the Office action, claim 1 is rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,548,327 to DePauw et al (hereinafter "DePauw"). Applicants respectfully disagree with the Examiner's characterization of DePauw.

The Examiner points to Figure 8A as disclosing "at least certain of the devices having a mesh". The Examiner has identified nothing in Figure 8A or in the text corresponding to the discussion of Figure 8A which indicates any of the elements illustrated in the figure are a mesh. The Examiner identifies Figure 8B as disclosing "completing the fabrication of the devices from the top side of the substrate". It is respectfully submitted that the difference between Figures 8A and 8B of DePauw illustrate plating with nickel 5 and gold 6. That is consistent with the abstract of DePauw which discloses that the "present invention is related to a method for electroless plating Nickel/Gold on aluminum bonding pads and single chips or wafer parts." It is respectfully submitted that such process steps are not fabrication steps. In any event, claim 1 has been amended to recite that the substrate carries micromachined meshes and the fabrication includes "forming certain of said meshes". It is respectfully submitted that Figure 8A of DePauw does not disclose a substrate carrying micromachined meshes and fabrication steps for forming certain of the meshes. Applicants therefore believe that the claim 1 is patentable over DePauw and respectfully requests that the rejection of claim 1 as being anticipated by DePauw be withdrawn.

In paragraph 4 of the Office action, independent claims 1 and 27 are rejected under 35 U.S.C. §102(b) as being anticipated by Tai et al U.S. Application Publication No. US/2003/0199116 A1 (hereinafter "Tai"). Applicants respectfully assert that the Examiner has mischaracterized Tai. The Examiner identifies Figure 4F as disclosing "attaching a carrier wafer to the backside of the substrate." The description of Figure 4F is found in paragraph 46 of Tai.

[0046] After selectively etching the silicon away from the backside of wafer 32 using DRIE to the dielectric layer 22 on the front side of wafer 32, pad etchant is used to remove the dielectric layer 22 itself thereby defining islands 36, which remain connected to each other through metal layers 24. Now a 10 μm Parylene C layer 38 is deposited on the back side of wafer 32 to sandwich the silicon islands 36 as shown in FIG. 4f. The final step is to release the polysilicon resistor or sensor 12 by BrF_3 gas phase etching as shown in FIG. 4g to create cavity 42 under sensor 12, which remains suspended on its Parylene N diaphragm. The purpose of this step is to achieve good thermal isolation for sensor 12. The integrated skin 10 cut from the wafer 32 is shown in the photograph of FIG. 5. The silicon islands 36 are clearly seen by shining light from the backside of the skin. The metal leads 40 going across the islands 36 from integrated circuits 44 can also be clearly observed.

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As seen from the foregoing, Tai has not been demonstrated as disclosing the use of attaching a carrier wafer. Accordingly, claim 1, and independent claim 27 which has been amended in a manner similar to claim 1, are believed to be patentable over Tai. Applicants respectfully request that the rejection of claims 1-3, 5, 7-11 and 27 as being anticipated by Tai be withdrawn.

Certain of the dependent claims have been rejected under §102 as well as §103. At this time Applicants do not submit comments in favor of the patentability of the dependent claims in view of Applicants' belief that the independent claims in the application are all now in condition for allowance. Applicants reserve the right, however, to argue the patentability of the dependent claims at a later date should that become necessary.

Applicants acknowledge the allowability of claims 12-26 and 28.

Applicants have made a diligent effort to place the instant application in condition for allowance. Accordingly, a notice of allowance for all the pending claims, claims 1-28, is respectfully requested. If the Examiner is of the opinion that the instant application is in condition for disposition other than through allowance, the Examiner is respectfully requested to contact applicants' attorney at the telephone number listed below.

Respectfully submitted,



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